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ABSTRACT

A survey was conducted in the fall of 1983 to investigate the provision of programs for faculty in microcomputer use at 30 southern and southeastern universities whose libraries were members of the Association of Southeastern Research Libraries. Each participating university was sent a description of a 10-week set of seminars on personal computing for Memphis State University (MSU) faculty and a letter requesting information on any similar programs at that university. Of the 23 (76.6%) universities responding, 4 reported no faculty computer literacy program of any kind, while the remaining 19 reported a wide range of instructional formats for such programs. Only two universities offered a segmented, multiple-session course in microcomputer instruction similar to the MSU course, though one series of four hour-long sessions was reported. Morning and afternoon workshops were the most common instructional format, followed by the existence of a microcomputer lab located either in a computer center or in colleges or schools. No dominant pattern of organizational locus of microcomputer instruction was evident, although computer centers were most commonly cited. This report includes extracts from letters and printed statements from respondents to indicate the variety of programs offered, and lists one reference. (LMM)

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Personal Computer Instruction for University Faculty*

By

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"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
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Most of the journalistic literature of higher education which discusses microcomputers speaks of preparing students to live in a world which will require some degree of computer literacy. Published discussion of enhancing the computer literacy of university faculty is rarer. This paper reports on a survey made in the fall of 1983 of thirty universities in the south and southeast to determine whether they provide any program of instruction for faculty in the use of microcomputers. Responses were received from twenty-three of the thirty (76.6%). Four universities reported no program of any kind designed to enhance faculty computer literacy. The remaining nineteen reported varying and diverse efforts to promote faculty computer literacy.

INTRODUCTION

Although some might wish to place the hypothetical activity to be described below in the Orient, it more appropriately would have occurred somewhere on the Mediterranean coast. Imagine for a moment the marketplace several millennia ago. Buyers throughout the crowd discuss and dispute with vendors the relative value of fruit, vegetables, animals, stoneware, and utensils. Every dozen cubits or so they encounter enthusiastic sellers of small devices useful for performing calculations by sliding counters or beads along rods or in grooves. The vendors of this devise - the abacus - relate many wonderful claims and predictions about how it will affect the lives of everyone, and how those who do not acquire a familiarity with it will flounder in a technological backwash. Some of the buyers eagerly purchase the abacus because they have a definite need for it, understand its potential, and know how they can use it to enhance their personal and professional lives. Others capitulate and acquire it because of some vague anxiety that, if they do not, they somehow will be missing an opportunity to take advantage of something they have been told is good for them.

The purpose of the foregoing allegory was not to preface a series of cynical remarks about the microcomputer, but to suggest that the current advertising and promotional rhetoric

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* A presentation based on this paper was made at the ASIS 13th Mid-Year Meeting, Indiana University, on May 23, 1984.

of the micro undoubtedly affects the American public in much the same way that the fictional buyers in the marketplace described above were affected by the abacus vendor. Somewhere amid all of the discussion, promotion, and in some cases, outright hoopla, the truth lies, but it will probably require the perspective of time to determine exactly what this truth is or will be. In the meantime, American colleges and universities, wagering that computer literacy is an important skill and one which increasingly will be advantageous to those possessing it, have launched a varied array of programs designed to promote it. The majority of these programs focus on a market made up of students. Many universities also provide opportunities for their faculties to acquire computer skills.

Beginning with the spring semester, 1983, Memphis State began offering, through its Center for Instructional Service and Research and taught by the Department of Mathematical Sciences, a ten week set of seminars on personal computing for university faculty. A flier announcing this program is reproduced below. Interest in the program since its inception has been strong and has been greater than could be accommodated. At the time of this writing, January, 1984, sixty-six faculty and professional staff are enrolled in two sections. These sixty-six persons represent each of the six teaching colleges of Memphis State University, and include nineteen persons from independent teaching departments and research or administrative units of the university.

CISR

Center for Instructional Service and Research
Memphis State University
Memphis, TN 38152
(901) 454-2181

IMPROVED LEARNING BY DESIGN

Professional Enrichment Seminars

PERSONAL COMPUTING FOR UNIVERSITY FACULTY

In response to growing interest on the part of MSU faculty to become more proficient in the use of microcomputers in all areas of their professional activities, the Center for Instructional Services and Research is pleased to announce the offering of a comprehensive, in-depth set of seminars on personal computing for university faculty. Conducted through and by the Department of Mathematical Sciences, this seminar series will offer the faculty member interested in making a serious commitment to becoming well-versed in the broad range of capabilities of the microcomputer with the opportunity to work and become familiar with state-of-the-art hardware and software.

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TIME COMMITMENT & STARTING DATE

This series will meet two days per week, two hours each day, for a total of ten weeks. During each two-hour period, one hour will be dedicated to discussion and presentation and one hour to hands-on experience with the IBM Personal Computer. The seminars will meet in the Math [illegible] Computer Lab, Dunn 222.

The series will begin during the week of September 12, 1983. Two sections will be offered:
Monday/Wednesday at 1 - 3 pm (McHenry) and Tuesday/Thursday at 2.30 - 4.30 pm (Franklin).

OBJECTIVE OF THE SERIES

The objective of the series is to acquaint the faculty participant with a broad range of capabilities, functions, and programs useful to faculty in their professional activities. The general topics to be covered include the following.

1. Exploring the Microcomputer - becoming familiar with the operating characteristics and general functioning of the microcomputer.
2. Programming - learning the principles of designing, coding, debugging, and modifying programs.
3. Word Processing - becoming familiar with the use of the WordStar word processing system in entering, editing, saving, and printing documents and manuscripts.
4. Data Base Management Systems - becoming familiar with the use of dBase II to set up a gradebook and to set up a data base for research purposes.
5. Electronic Spread Sheet - becoming familiar with the use of VisiCalc to both set up a gradebook and to construct a budget for a grant proposal.
6. Computer Based Education (CBE) - exploring the use of microcomputers in college classroom instruction. The participants will become familiar with resources, planning procedures, and criteria for selecting instructional computer programs.
7. The Microcomputer as a Research Tool - exploring the use of the microcomputer in controlling laboratory experiments, gathering data, and performing statistical analyses.
8. Connecting Devices to Microcomputers - exploring the methods, procedures, and constraints in interfacing printers, modems, optical readers, and other devices with the microcomputer.

All costs associated with this seminar series are being borne by the University. However, enrollment is limited to sixty (60) full-time regular faculty members. If you wish to register, please complete the attached Registration Form and return it by September 8, 1983. The first thirty (30) faculty to register for each section will constitute the section.

If you have any questions or would like more information, please call Dr. Howard Ramagli at 2181.

An Equal Opportunity University

THE SURVEY

This paper reports on a survey made, during the fall of 1983, of thirty universities in the south and southeast. These thirty, along with that represented by the writer, are those whose libraries are members of the Association of Southeastern Research Libraries. These universities are also the largest in the south and southeast. Specifically, the survey attempted to discover which, among the thirty universities,

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offered programs of microcomputer instruction to their faculties. To make this determination, a letter and a copy of the flier reproduced above were sent to the chief academic officer of each of the universities. The letter explained that Memphis State University had initiated the program outlined in the enclosure, and that the same letter was being sent to each of the thirty chief academic officers included in the survey. It further asked whether similar programs were offered by their institutions and, if so, whether they would send to the writer a copy of a similar program description. It further asked that, in the event that no such program was offered by their universities, they indicate this on the bottom of the letter and return it. This approach was chosen rather than that of a questionnaire because of the assumption that a variety of program formats for microcomputer instruction for faculty would be in effect and that the structured, questionnaire technique was inappropriate. This assumption appears to have been well founded, because several of the respondents chose to write individual letters, some rather lengthy, explaining programs of computer instruction on their campuses.

Responses were received from twenty-three of the universities included in the survey, yielding a response rate of 76.6 per cent. Of these twenty-three, nineteen indicated some form of computer instruction for faculty and four indicated none. Thus, 82.6 per cent of the respondents, or 63.3 per cent of those universities to which letters were originally sent, provided responses indicating computer instruction for faculty.

SURVEY RESULTS

Although the letter sent to the thirty chief academic officers spoke explicitly about microcomputers, was accompanied by a copy of the flier reproduced on pages two and three of this paper, and asked specifically about courses of instruction for faculty in microcomputer use, several of the respondents returned information which discussed broad, comprehensive programs of computer instruction for faculty and spoke only incidentally about micros.

Examination of the responses focused on several questions, the most obvious of which was whether a program of instruction, of any kind, for faculty in the use of micros existed. Nineteen respondents indicated some form of program. A very wide range of instructional format was reported. Only two of the reporting universities indicated the existence of a segmented, multiple session course in micro instruction similar to that offered by Memphis State University. One other respondent reported a series of four, hour long sessions, within a larger attempt to provide computer instruction.

By far, the most common package of micro instruction for faculty reported was that of the morning and afternoon "workshop" variety; the next most common was of a more passive nature: the existence of a microcomputer lab either located in a computer center or in one or more colleges or schools. In these latter cases, the typical comment was that the microlab was maintained and consultants or personnel were available to aid and to assist faculty seeking help with the use of the micro.

A second question for which answers in the responses were sought was that of the particular institutional, organizational locus of microcomputer instruction. No dominant or consistent pattern was in evidence. The most commonly cited organizational locus was that of a computer center, although various universities apparently apply various names to these. Also, it was not possible to determine how, on an individual campus, computer center activity was organized. It appeared in two cases that academic, instructional, and research computing was all organized under an "umbrella" center, with specific responsibility for instruction to faculty and to students a part of the overall responsibility. At one university, instruction for faculty in the use of the micro was under the purview of a faculty development center which assumes responsibility for a variety of offerings designed to promote the improvement of instruction. In tabulating the responses, it was found that seven universities reported instruction for faculty in micro use under the auspices of a computer center (again, with varying degrees of responsibility); five programs of micro instruction were offered by individual departments, colleges or schools; three universities reporting programs did not specify the organizational locus for their programs; and two reported programs offered by or through a department or division of continuing education.

Lesser questions addressed in examining the responses were the degree to which use of the micro as a word processor was included in programs of instruction, the mention of various machines, and the identification of specific programming languages or software identified in the responses. Only five of the responses explicitly mentioned word processing as a component of a course of instruction. Various models of the APPLE machine were mentioned four times; the TRS-80 was cited two times; PET once, and the IBM-PC three times. Among the programming languages or application software mentioned were BASIC, APPLE LOGO, APPLE FORTRAN, APPLE PASCAL, WORDSTAR, PFS, VISICALC, EASYWRITER, and ALTOS.

The foregoing discussion of results is a condensation, almost in the extreme, of the responses received and does not provide a sense of the full variety of programs offered. To

better achieve this purpose, extracts from letters or printed program statements follow and will allow a better understanding of emphases and priorities revealed by them. Because of a commitment made in the original letter not to identify any university, the elipsis will be used to honor this commitment.

"No formal program is offered; however, the . . . does maintain an academic computing center complete with staff, personal computers, and microcomputers. The center can provide instruction for faculty and actively works with faculty in their research efforts to inform and teach about the opportunities and methods for using microcomputers and personal computers as support. The center is directed by a faculty advisory committee with representatives from each of the . . . whose responsibility is to discover and serve the computing needs of the faculty in those schools by utilization of available resources such as the academic computing center staff and equipment."

". . . has no university-wide program of instruction in microcomputers for faculty; however, several colleges have offered seminars on that topic for their faculty, and numerous courses are offered on the topic which faculty can, and often do, attend if they wish."

. . . sent a description of a microcomputer course offered by its Division of Continuing Education. "By spring, 1984, the Computer Center will offer a microcomputing course for faculty and staff, but the description will not be available until the winter quarter."

"The Computing Center at . . . offers short courses on various topics, usually in programming languages. . . . the Computing Center does provide a microlab and consultants to aid interested faculty."

". . . is in the midst of a planning program in which a Task Force for Computing and Information Processing has been appointed to construct a long range strategic plan for computing for the University. One of the Task Force's charges is to develop plans for instructional computing. The Task Force appointed an Instructional Computing Committee to consider the question of how to deal with all areas of instructional computing, including "Computer Literacy." The Committee's final report is in the draft stage, but one of the primary recommendations of the committee is that the University begin immediately to construct a permanent program of instruction in computing, including the use of microcomputers, for the faculty. Included in this recommendation is the notion that faculty members should be (gently) pushed into taking advantage of this program."

". . . does not have a single, long course to give microcomputer instruction to faculty members. The staff of the Computation Center gives short courses, usually two weeks in length, and covers segments of the material described in your (the Memphis State University) announcement. I doubt that the results are the same, for the individual members must themselves arrange to put the various short courses in sequence over a long period of time."

". . . has no university-wide program. Several schools do their own 'in-house' thing for their faculty since needs in different schools are varied."

". . . the education department and the microcomputer components of the Computer Services Division of the . . . offer an array of services on a continuing basis in the area of microprocessors. These offerings are listed in the letter returned to you along with examples of courses and services offered."

". . . several such programs are offered; a more in-depth, one-year program will be initiated in Winter, 1984."

". . . does not have a program at this time. We have just installed our first public-access 'Apple Orchard,' however, and it is quite likely that something will be done to encourage and facilitate faculty training in the use of micros. Nothing specific is 'on the boards' now."

". . . we do not have such a course. We do have a seminar series given by our computer center staff on use of their facilities - but it's quite different from yours."

"In response to the increased interest in computing, a series of academic computing institutes were developed to provide faculty with an understanding of how computers can be employed in higher education. All academic units were invited to nominate representatives to attend these institutes. A total of 150 faculty members, from fifty different academic units, participated in the three institutes conducted during the past year. Although the first institute was eight days in length, modifications were made to shorten the institutes to one week. All three institutes provided lectures and demonstrations of academic computer applications, tours of campus locations utilizing computers, and laboratory experience in using computer resources . Mornings of the institutes were devoted to general sessions where all participants received an introduction to computer services and resources available to the faculty and illustrations of the types of research and instructional computing activities occurring on the campus. During the afternoons of the institutes, the participants were able to attend one of two

workshops that stressed hands-on experience with computers. One workshop utilized a time-share system and provided an introduction to basic computer hardware and software concepts. The other workshop utilized a microcomputer laboratory and provided an introduction to programming instructional applications and experience with word processing, data management and decision support applications.

"The Division of Continuing Education at . . . has developed a computer literacy program for faculty, staff, and students which is operated on a 'break-even' basis through the Division's Department of Conferences and Non-Credit Programs. In the summer of 1983, twenty microcomputers were purchased with the intent to use fifteen for instruction, holding five as back-ups. A pilot course was run during August in order to test the instructional materials and provide the instructor with 'live rehersals.' Special features of the program include a 'lab' building with work tables, printers, and adequate parking; and provision for checking out the computers for overnight and/or weekend usage. In September, deans and department heads were advised of the program via a memo and flyer. A key factor in the project has been the support of the central administration in permitting use of departmental funds to pay the tuition and materials fee. A follow-up course on quantitative methods is also in operation. During the Winter Quarter, a course using the dBase II spreadsheet software will be introduced."

". . . have no program which duplicates Memphis State, but a great deal is being done to enhance faculty computer literacy. . . . has an Academic Computing Department whose job is to help faculty with their computer-related needs, with Academic Computing Centers on each of their two campuses, the Medical Campus and the Academic Campus. The Medical Campus Academic Computing Center gave a mini-course (no C.E.U.'s; no credit), intended primarily for graduate students and faculty. The Information Systems Department is responsible for many courses in computing. It recently made a series of presentations (seven or eight) of an hour each to the University President, the Vice Presidents, and the Deans on computing concepts and information systems. It followed up the presentation with 'hand-on' sessions of three hours each on spread sheet analysis. . . . faculty and staff may take one 'free' course per semester. Many have used this opportunity to take courses in the Information Services Department in order to familiarize themselves with the use of microcomputers. The Academic Computing Department looks at training in the use of microcomputers as just one element in computer literacy, not as an end in itself. . . . Management Center specializes in workshops and programs for the general business public, often for C.E.U credit. The

Management Center faculty come both from . . . and from the business community. Such programs as 'project management and the personal use computer' have been given. . . . faculty may use tuition waivers to take Management Center Courses. In addition, the Center has encouraged limited numbers of qualified Business School faculty to attend. It is hoped that these faculty will then lead further training sessions at . . . . The Accounting Department, School of Business, has required all faculty to update computer skills, in part, because of Accounting accreditation requirements. Its Chair, . . ., has used CPA's in practice, as well as his departmental faculty and Academic Computing faculty to accomplish his goals. His department holds half-day classes for Accounting faculty every two weeks."

CONCLUSION

It is clear that no generalized conclusions can be drawn from this brief study. It is nothing more than a snapshot of activity underway at twenty-three universities during the fall of 1983. Nevertheless, it does indicate a strong interest on the part of the participating universities in promoting computer literacy and, in particular, in promoting faculty expertise in the use of microcomputers. An interesting characteristic of the responses is that they indicate not only a variety of efforts to encourage the use of the micro, but they also indicate that these efforts are in various stages of development. Where they will eventually lead is another study and can only be speculated. The introductory remarks of this study suggested that the ultimate place of the micro in American life is yet to be determined. There are those who, like the abacus vendor, embrace the micro and see it as some form of panacea; others are soberly enthusiastic. (1) The safe money is on the latter.

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1. Golden, Robert E. "Caution and Skepticism are Needed on the Road to Computer Literacy," Chronicle of Higher Education. 27 (December 7, 1983): 80.

Wirtenberg, J., & Richardson, B.L. Introduction. In B.L. Richardson, & J. Wirtenberg (Eds.) Sex role research. New York: Praeger, 1983.